

ABSTRACT

A heating characteristic value at any measuring point of
5 an object at any measuring location of a heating furnace is
determined as a single invariable by using temperature
(T_{int} and T_s) measured at the measuring point of the object
and heating temperature (T_a) and heating time (t) at the
measuring location of the heating furnace. The heating
10 characteristic value (m-value) may be calculated without
using physical characteristics of the object. By using the
m-value, a temperature profile of the object heated under a
modified heating condition may be simulated in a short
period of time without actually heating and measuring the
15 temperature of the object at a high accuracy level. By
using such a simulation, an appropriate heating condition
for heating an object in accordance with a desired heating
condition may easily be determined.